

ABSTRACT

The invention provides methods of generating angiostatin *in vitro* comprising contacting plasminogen with a plasminogen activator and a sulphydryl donor or contacting plasmin with a sulphydryl donor. The invention also provides a method of treating 5 angiogenic diseases by administering to an animal suffering from such a disease a sulphydryl donor, a plasminogen activator, or a combination of a sulphydryl donor and a plasminogen activator. The invention further comprises a composition for generating angiostatin comprising a sulphydryl donor and a plasminogen activator. The invention also provides a container holding a sulphydryl donor and/or a plasminogen activator, said container having 10 a label thereon instructing administration of the sulphydryl donor and/or plasminogen activator to an animal suffering from an angiogenic disease. The invention further provides plasminogen fragments whose N-terminal amino acid is the same as that of plasmin and whose C-terminal amino acid is located in kringle 5 and which inhibit angiogenesis, antibodies which bind selectively to these fragments, methods and kits for using the 15 antibodies, methods and materials for making the fragments by recombinant DNA techniques, and a method of treating an angiogenic disease comprising administering an effective amount of one of the fragments. Finally, the invention provides a method of treating an angiogenic disease comprising administering a transgene coding for one of the fragments.